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EXAMINER
MILLER,R

ESM1/0907
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SUITE 600
MCLEAN VA 22102

ART UNIT	PAPER NUMBER
2515	3

DATE MAILED: 09/07/95

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☐ Responsive to communication filed on _____ ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 0 days from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

1. ☒ Notice of References Cited by Examiner, PTO-892.
2. ☒ Notice of Draftsman's Patent Drawing Review, PTO-948.
3. ☐ Notice of Art Cited by Applicant, PTO-1449.
4. ☐ Notice of Informal Patent Application, PTO-152.
5. ☐ Information on How to Effect Drawing Changes, PTO-1474.
6. ☐ _____.

Part II SUMMARY OF ACTION

1. ☒ Claims 1-20 are pending in the application.

   Of the above, claims _____ are withdrawn from consideration.

2. ☐ Claims _____ have been cancelled.

3. ☐ Claims _____ are allowed.

4. ☒ Claims 1, 3-6, 8-11, 13-16 and 18-20 are rejected.

5. ☒ Claims 2, 7, 12 and 17 are objected to.

6. ☐ Claims _____ are subject to restriction or election requirement.

7. ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.

8. ☐ Formal drawings are required in response to this Office action.

9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).

10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____. has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).

11. ☐ The proposed drawing correction, filed _____, has been ☐ approved; ☐ disapproved (see explanation).

12. ☒ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☒ been received ☐ not been received ☐ been filed in parent application, serial no. _____ ; filed on _____.

13. ☐ Since this application apppears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.

14. ☐ Other

EXAMINER'S ACTION

Claims 5 and 10 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claims 5 and 10, "a simple matrix electrodes" should probably be changed to --a matrix of electrodes--.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. § 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless --
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 5 are rejected under 35 U.S.C. § 102(b) as being anticipated by Spruijt et al. (U.S. patent 4,394,067).

Spruijt et al. illustrate a liquid crystal display device in figure 1 which includes:

1. A first substrate 1 having thereon a display region and a drive circuit region comprising a drive circuit 9;

2. A second substrate 2 opposed to the first substrate and extended to oppose both of said regions on the first substrate;

3. A sealing agent 13 partitioning said regions; and

4. Liquid crystal material 15 incorporated between the substrates.

In column 2, lines 65-68, Spruijt et al. teach using a simple matrix configuration.

The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
>
> Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1,3-6,8-11,13-16 and 18-20 are rejected under 35 U.S.C. § 103 as being unpatentable over the applicant's admission of prior art in view of Spruijt et al.

The applicant illustrates a conventional display in figure 1 and describes it on pages 1 and 2 of the specification. The conventional display differs from the claimed invention in that the second substrate 2 does not extend to oppose the display region and the drive circuit region.

Spruijt et al. have been described above. Furthermore, in column 1, lines 52-54, they teach that sealing the IC between the glass plates provides a good mechanical and impervious protection

for the IC. Therefore, it would have been obvious to extend the second substrate 2, in the conventional display describe by the applicant, to oppose the drive circuit region to provide good mechanical and impervious protection of the drive circuit.

On page 1, paragraph 2, the applicant indicates that conventional displays comprise active elements such as TFT's. MIM diodes are also conventional active elements used in liquid crystal displays and would have been obvious to use in a conventional display as modified by the teachings of Spruijt et al. Furthermore, it would have been obvious to use a simple matrix configuration to reduce cost.

On page 2, the applicant admits that a resin material is conventionally formed over the drive circuit. It at least would have been obvious to use an epoxy resin in a conventional display as modified by the teachings of Spruijt et al. due to the strong adhesion characteristic of epoxy resin.

Claims 2,7,12 and 17 would be allowable if rewritten to overcome the rejection under 35 U.S.C. 112 and to include all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yamazaki discloses a display with a second substrate extending over the drive circuits on a first substrate. Kubo et al., Kawaguchi et

al., Arledge et al., Hashimoto and Mase disclose displays with drive circuits attached to one of the substrates.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Miller whose telephone number is (703) 305-6202.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

Anita Pellman Gross

ANITA PELLMAN GROSS
PRIMARY EXAMINER
GROUP 2500

C.M.

Charles Miller
August 30, 1995